

**REMARKS**

This Supplemental Amendment is being filed further to the June 11, 2007 Amendment filed in this application. The amendments to the claims in this Supplemental Amendment are further to the amendments filed in the June 11, 2007 Amendment. The Remarks and English translation of the priority document included in the June 11 Amendment are considered to be of record.

Claims 1-23 are pending in this application. By this Amendment, claims 1 and 22 are amended, and new claim 23 has been added. The amendments to claim 1 are supported in the application as originally filed in at least p. 22, line 4; and p. 16, lines 18-20. No new matter is added.

The courtesies extended to Applicant's representative by Examiners Verderame and Angebrannndt at the interview held June 6 are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicant's record of the interview.

In view of at least the following remarks, reconsideration and allowance are respectfully requested.

**I. Rejections Under 35 U.S.C. §102**

**A. Tseng**

The Office Action rejects claims 1-3 and 6 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0219455 to Tseng et al. ("Tseng"), as evidenced by Hackh's Chemical Dictionary. This rejection is respectfully traversed.

As agreed in the June 6 interview, Applicant's submission of an accurate English translation of Japanese Application No. 2003-093937, disqualifies Tseng as prior art.

Accordingly, Applicant respectfully requests that the rejection over Tseng should be withdrawn.

**B. Kasai**

The Office Action rejects claims 1-3 and 5-12 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,214,249 to Kasai et al. ("Kasai"). This rejection is respectfully traversed.

In addition to the reasons enumerated in the June 11 Amendment, Kasai fails to disclose an optical recording medium where metal particles are dispersed in chalcogenide glass "prior to a process of recording of information in the optical recording material by irradiation of light," as recited in claim 1.

As discussed in the June 6 interview, the Examiner asserts that Kasai discloses "dispersing" metal particles in the chalcogenide glass because it states that the metal layer diffuses into the glass when irradiated with light. Applicant disputes the Examiner's interpretation of the claim language in this respect, however, even under a broad interpretation of the claim language, Kasai does not disclose that the metal particles are dispersed in the chalcogenide layer prior to being irradiated with light during recording. Thus, for at least this reason claim 1 is patentable over Kasai.

Claims 2, 6, 9 and 11 depend from claim 1 and are therefore also patentable over Kasai for the reasons enumerated above, as well as for the additional features they recite. Claims 2, 3, and 5-12 are also patentable over Kasai for the reasons enumerated in the June 11 Amendment.

**C. Slinger**

The Office Action rejects claims 1, 2, 4, 6-10, 13 and 14 under 35 U.S.C. §102(b) as being anticipated by "Photodoped Chalcogenides As Potential Infrared Holographic Media,"

Slinger et al., Applied Optics, Vol. 31, No. 14, pp. 2490-2498 (May 1992) ("Slinger"). This rejection is respectfully traversed.

Claims 1, 2, 6, 9 and 13 are patentable over Slinger for the reasons discussed above with respect to Kasai, and claims 1, 2, 4, 6-10, 13 and 14 are patentable over Slinger for the reasons enumerated in the June 11 Amendment. As discussed in the interview, Slinger also does not disclose metal particles that are dispersed in the chalcogenide glass.

**D. Inoue**

The Office Action rejects claims 1, 2, 6-8, 13 and 14 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,825,317 to Inoue et al. ("317 Inoue"). This rejection is respectfully traversed.

Inoue fails to disclose metal particles dispersed in chalcogenide glass, where the metal particles have a particle size of less than 35 nm, as recited in claim 1. There is no indication in '317 Inoue about the particle size of the metal particles illustrated, for example, in Fig. 3.

During the interview, the Examiner asserted that U.S. Patent No. 3,907,566 to Inoue et al. ("566 Inoue") discloses metal particle sizes within the currently claimed range. See, e.g., '566 Inoue at col. 7, lines 1-6. However, the photosensitive particle referred to in '566 Inoue is a particle of an inorganic material such as  $As_2S_3$  with a metal coating. Indeed, '566 Inoue notes that the metal is coated on to a "particle" of the inorganic (non-metal) component, and accordingly does not teach or suggest a metal particle having the claimed particle size. See, e.g., '566 Inoue at col. 2, line 27 through col. 3, line 9. Thus, for at least this reason, claim 1 is patentable over both '317 Inoue and '566 Inoue.

Claims 2, 6-8, 13 and 14 are patentable over '317 Inoue for at least the reasons enumerated in the June 11 Amendment, and claims 2, 6 and 13 are additionally patentable for the reasons enumerated above.

**II. Rejections Under 35 U.S.C. §103**

Applicants June 11 remarks with respect to the §103 rejections are of record. Additionally, claims 1, 2, 6, 9, 11, 13, 15, 17 and 19 are further patentable over the applied references for at least the reasons enumerated above.

**III. New Claims**

The applied references also do not disclose, teach or suggest the subject matter claimed in new claims 21-23.

Claim 21 recites that the metal particles which are dispersed in the chalcogenide glass have a particle size of less than 20 nm. Claim 22 is directed to a recording method for a recording layer having metal particles dispersed in glass prior to a step of irradiating with light, where the method includes irradiating the recording layer such that the dispersed metal diffuses into the chalcogenide glass, and where the "particle size of the metal is no greater than 1/20 of the wavelength of said light."

The art of record does not disclose the metal particle size recited in claim 21, and does not disclose a recording method where the particle size of the metal and/or wavelength of light is controlled to be in the claimed parameters.

Claim 23 is directed to a method of manufacturing an optical recording medium by simultaneously co-depositing a film of chalcogenide glass and metal to form a recording layer where the metal particles are dispersed in the chalcogenide glass. As discussed during the interview, the applied references do not suggest a co-depositing technique for dispersing metal particles in chalcogenide glass. For example, '317 Inoue suggests that particles are placed on a support, and then a photosensitive receptor is placed on the particles and subsequently melted. See, '317 Inoue at col. 7, lines 41-50.

Accordingly, for at least these reasons, claims 21-23 are also patentable over the applied references.

**IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-3 and 5-23 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:ALW/tls

Attachment:  
Amendment Transmittal

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